Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

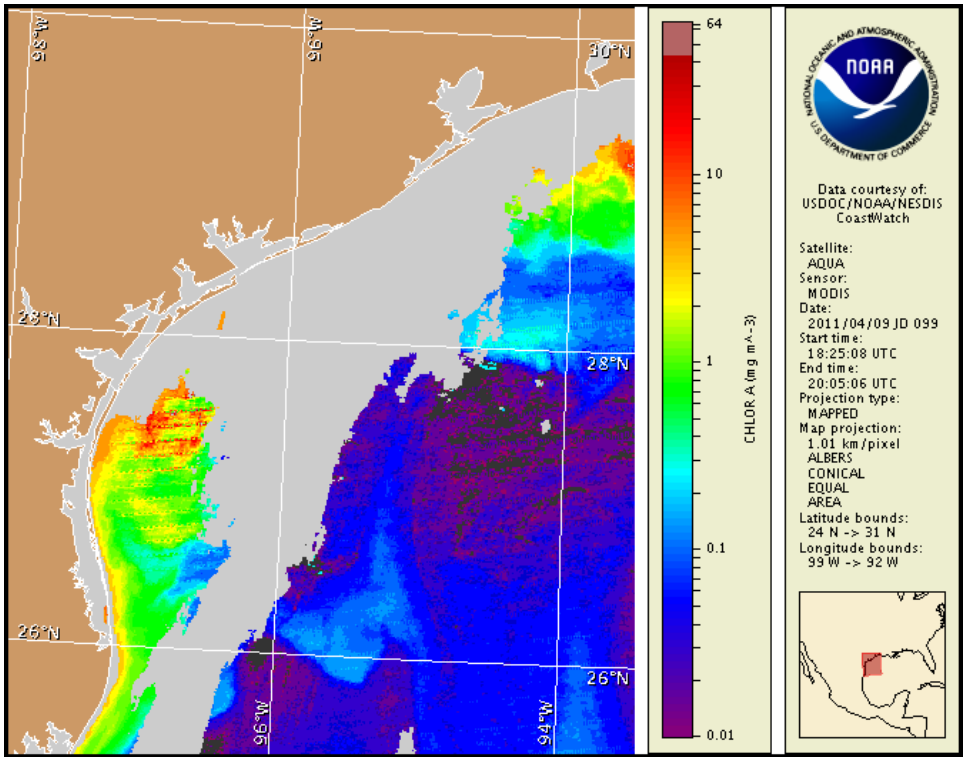
Monday, 11 April 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 4, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from April 1 to 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Conditions Report

There is currently a bloom of the harmful algae, Dinophysis, around St. Charles, Corpus Christi and Aransas bays. This algal bloom does not produce respiratory irritation impacts associated with the Texas red tide caused by Karenia brevis. No respiratory irritation impacts are expected alongshore Texas today through Sunday, April 17.

Analysis

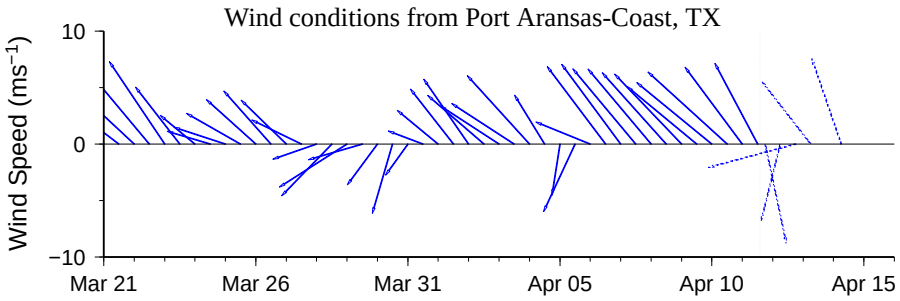
A bloom of *Dinophysis ovum* continues to be reported in St. Charles, Corpus Christi, and Aransas bays. Blooms of *Dinophysis* are rare in the US and we do not have a standard for monitoring with remote sensing. Imagery does not provide a useful reference for the blooms, but may help visualize circulation patterns. *Dinophysis* does not produce respiratory impacts associated with the Texas red tide caused by *Karenia brevis*; however, the bloom has resulted in shellfishing restrictions in the following areas and bays: Corpus Christi, Aransas, and St. Charles (TPWD; 4/8). No fish kills or other impacts have been reported in association with this event. Updates on this bloom will continue to be provided as information becomes available.

Recent imagery is almost completely obscured by clouds along the Texas coastline north of Baffin Bay, limiting analysis. MODIS imagery from 4/9 (at left) indicates only slightly elevated chlorophyll (1-5 μg/L) alongshore from Baffin Bay to Brazos Santiago Pass. MODIS imagery from last week (4/5) indicated similar elevated chlorophyll (2-10 μg/L) along the majority of the Texas coastline from Matagorda Bay to South Padre Island, and elevated to high chlorophyll (2 to >10 μg/L) along- and offshore north of Matagorda Bay to Sabine Pass. Elevated chlorophyll at the coast is likely due to the resuspension of benthic chlorophyll and sediments and not related to a harmful algal bloom.

Transport models are based on movement in the Gulf of Mexico, thus we cannot forecast the transport of the *Dinophysis* bloom in the bays at this time. Forecast models indicate a maximum transport of 30km south along the coast from Port Aransas from April 9-14.

Derner, Kavanaugh

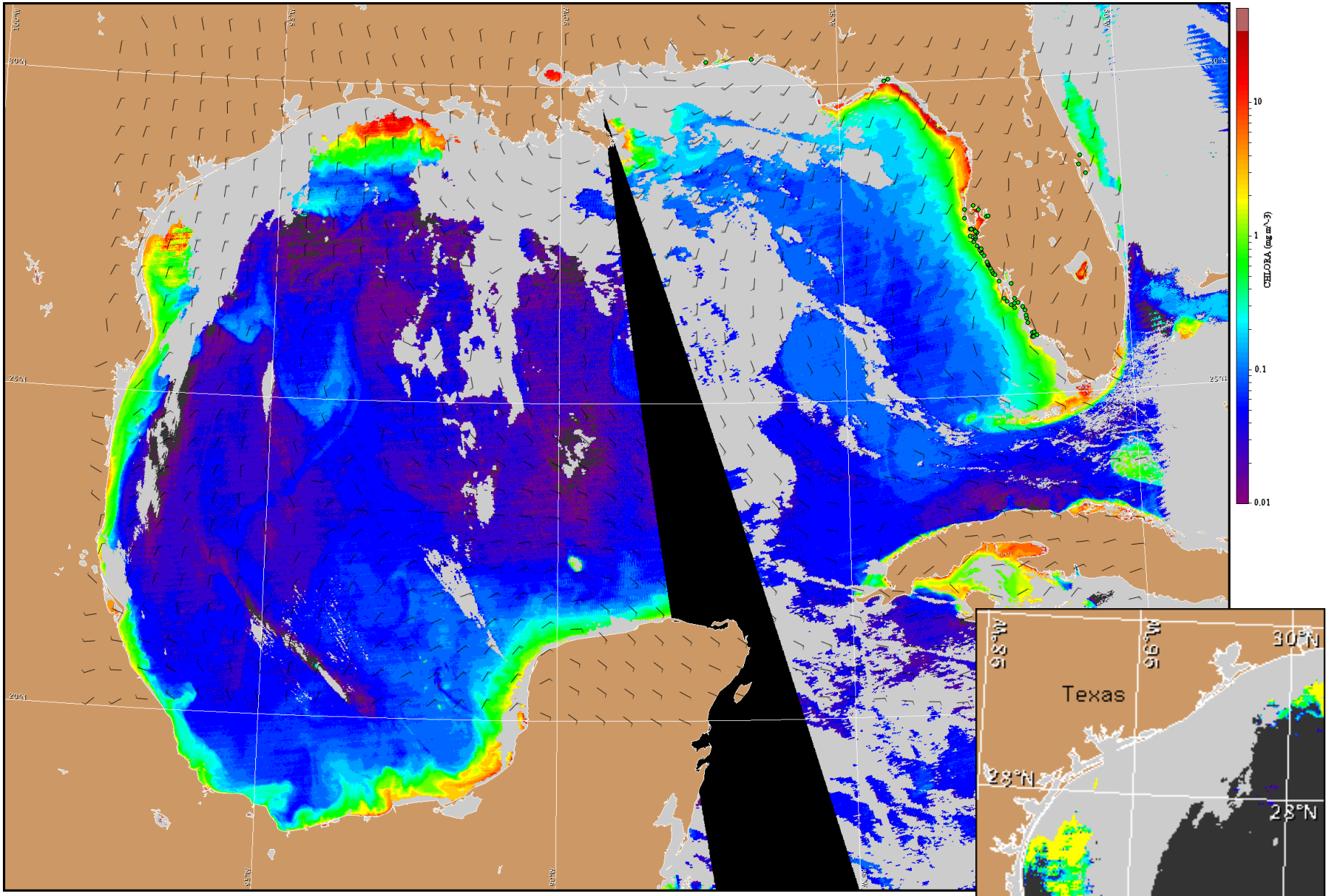
To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive: http://tidesandcurrents.noaa.gov/hab/bulletins.html



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Port Aransas: Variable west winds (10-15kn, 5-8m/s) today becoming north (10-15kn) tonight. Northeast wind (15-20kn, 8-10m/s) Tuesday becoming southeast (10-20kn) Tuesday night through Thursday. East winds (10-15kn) Friday.



Satellite chlorophyll image and forecast winds for April 12, 2011 06Z with cell concentration sampling data from April 1 to 8 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).